

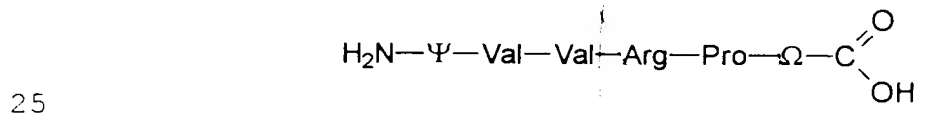
Patent Claims

1. Cosmetic or ^{dermatological topical} ~~pharmaceutical~~ preparations which ^{comprise} ~~are~~ distinguished by an effective content of one or more
5 monomeric or homo- or heterodimeric or homo- or heterotrimeric or homo- or heterotetrameric oligopeptides,

(1) where these oligopeptides are based on a structure
10 Val-Val-Arg-Pro (or VVRP) ~~as homo- or heteromonomer~~,

(2) where, in the sequence Val-Val-Arg-Pro, in each case one valine may be replaced by an amino acid selected from the group consisting of glycine,
15 alanine, leucine, isoleucine, serine, threonine and methionine, ~~preferably alanine~~, while the remainder of the sequence is retained,

(3) or where structures as mentioned above are present
20 in the monomeric or homo- or heterodimeric or homo- or heterotrimeric or homo- or heterotetrameric oligopeptides, with the difference that the C-terminus and/or the N-terminus is complemented by up to 5 amino acids, as shown by the structure

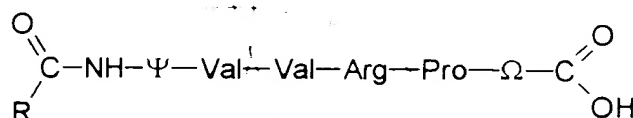


where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids,

30 (4) or where amino acid sequences shown under items (1) and (2) occur as single or repetitive structural motifs in monomeric or homo-/hetero-di-, -tri- or -tetrameric oligopeptides or proteins with a

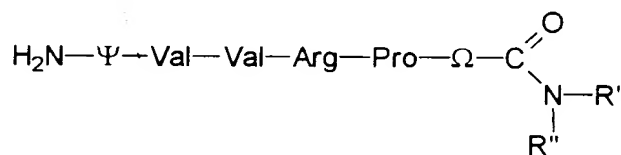
molecular weight of between approx. 0.5 and 100 kdalton,

- (5) or where the monomeric or homo-/hetero-di-, -tri-,
or -tetrameric oligopeptides or proteins are
acylated on the N-terminus, as shown by the
structure



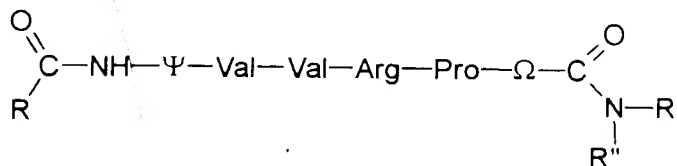
- where Ψ and Ω independently of one another may
represent amino acid sequences of 0 up to 5 amino
acids and R represents a branched or unbranched
saturated or unsaturated hydrocarbon radical, in
particular an alkyl radical having 1 to 30 carbon
atoms,

- (6) or where the monomeric or homo-/hetero-di-, -tri-,
or -tetrameric oligopeptides or proteins are
amidated on the C-terminus, as shown by the
structure



- where Ψ and Ω independently of one another may
represent amino acid sequences of 0 up to 5 amino
acids and where R' and R'' independently of one
another may be selected from the group consisting
of hydrogen and the branched or unbranched
saturated or unsaturated hydrocarbon radicals, in
particular the alkyl radical having 1 to 30 carbon
atoms,

(7) or where the monomeric or homo-/hetero-di-, -tri-, or -tetrameric oligopeptides or proteins are amidated on the C-terminus and acylated on the N-terminus, as shown by the structure



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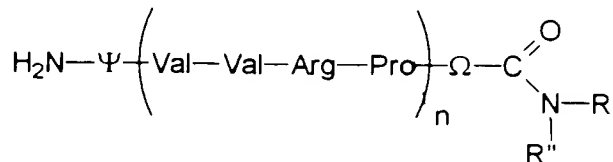
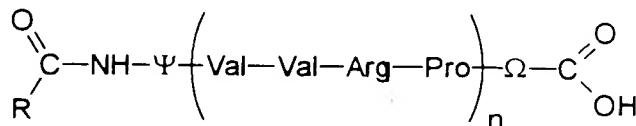
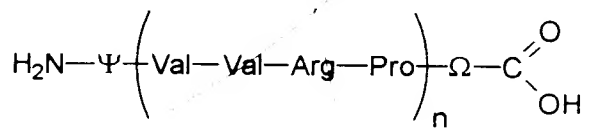
where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids, R represents a branched or unbranched, saturated or unsaturated hydrocarbon radical, in particular an alkyl radical having 1 to 30 carbon atoms, and where R' and R'' independently of one another may be selected from the group consisting of hydrogen and the branched or unbranched, saturated or unsaturated hydrocarbon radicals, in particular the alkyl radical having 1 to 30 carbon atoms,

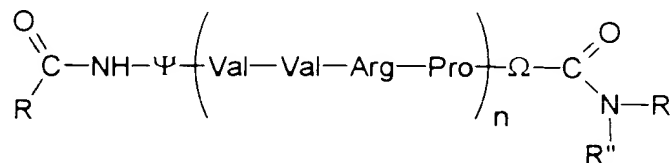
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(8) or where amino acid sequences occur in monomeric or homo-/hetero-di-, -tri- or -tetrameric oligopeptides or proteins as single or repetitive structural motifs, as shown by the structures

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where Ψ may represent a single bond or an amino acid sequence of up to 5 amino acids, Ω may represent an amino acid sequence of up to 15 amino acids, n represents a number from 1 to 25, R represents a branched or unbranched saturated or unsaturated hydrocarbon radical, ~~in particular an alkyl radical having 1 to 30 carbon atoms,~~ and where R' and R'' independently of one another may be selected from the group consisting of hydrogen and the branched or unbranched, saturated or unsaturated hydrocarbon radicals, ~~in particular the alkyl radical having 1 to 30 carbon atoms.~~

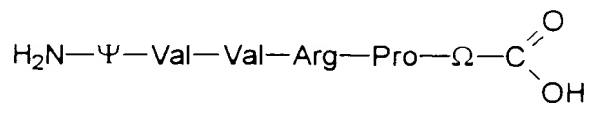
2. Use of one or more monomeric or homo- or heterodimeric or homo- or heterotrimeric or homo- or heterotetrameric oligopeptides,

(1) where these oligopeptides are based on a structure Val-Val-Arg-Pro (or VVRP) as homo- or heteromonomer,

(2) where, in the sequence Val-Val-Arg-Pro, in each case one valine may be replaced by an amino acid selected from the group consisting of glycine, alanine, leucine, isoleucine, serine, threonine and methionine, preferably alanine, while the remainder of the sequence is retained,

(3) or where structures as mentioned above are present in the monomeric or homo- or heterodimeric or homo- or heterotrimeric or homo- or heterotetrameric oligopeptides, with the difference that the C-

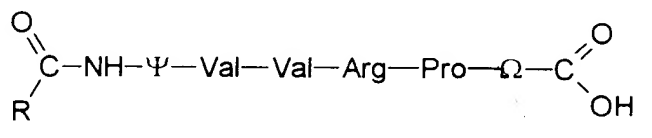
terminus and/or the N-terminus is complemented by up to 5 amino acids, as shown by the structure



5 where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids,

10 (4) or where amino acid sequences shown under items (1) and (2) occur as single or repetitive structural motifs in monomeric or homo-/hetero-di-, -tri- or -tetrameric oligopeptides or proteins with a molecular weight of between approx. 0.5 and 100 kdalton,

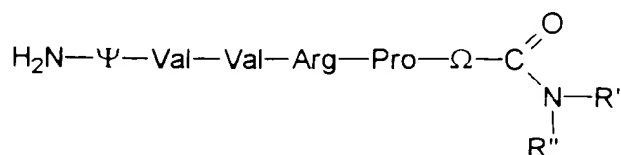
15 (5) or where the monomeric or homo-/hetero-di-, -tri-, or -tetrameric oligopeptides or proteins are acylated on the N-terminus, as shown by the structure



20 where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids and R represents a branched or unbranched, saturated or unsaturated hydrocarbon radical, in particular an alkyl radical having 1 to 30 carbon atoms,

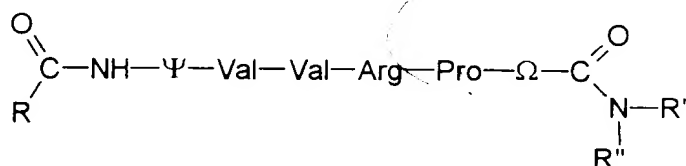
25 (6) or where the monomeric or homo-/hetero-di-, -tri-, or -tetrameric oligopeptides or proteins are amidated on the C-terminus, as shown by the structure

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where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids, and where R' and R'' independently of one another may be selected from the group consisting of hydrogen and the branched or unbranched saturated or unsaturated hydrocarbon radicals, in particular the alkyl radical having 1 to 30 carbon atoms,

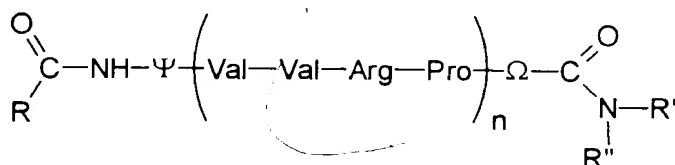
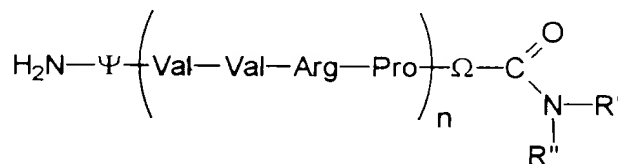
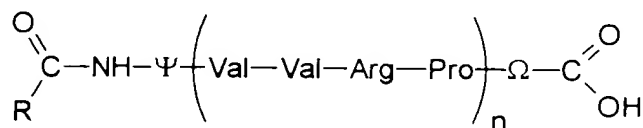
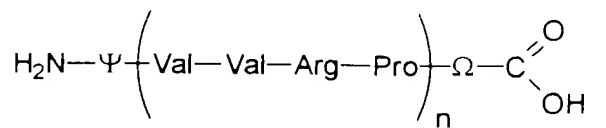
- (7) or where the monomeric or homo-/hetero-di-, -tri-, or -tetrameric oligopeptides or proteins are amidated on the C-terminus and acylated on the N-terminus, as shown by the structure



where Ψ and Ω independently of one another may represent amino acid sequences of 0 up to 5 amino acids, R represents a branched or unbranched, saturated or unsaturated hydrocarbon radical, in particular an alkyl radical having 1 to 30 carbon atoms, and where R' and R'' independently of one another may be selected from the group consisting of hydrogen and the branched or unbranched saturated or unsaturated hydrocarbon radicals, in particular the alkyl radical having 1 to 30 carbon atoms,

- (8) or where amino acid sequences occur in monomeric or homo-/hetero-di-, -tri- or -tetrameric oligopep-

tides or proteins as single or repetitive structural motifs, as shown by the structures



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where Ψ may represent a single bond or an amino acid sequence of up to 5 amino acids, Ω may represent an amino acid sequence of up to 15 amino acids, n represents a number from 1 to 25, R represents a branched or unbranched saturated or unsaturated hydrocarbon radical, in particular an alkyl radical having 1 to 30 carbon atoms, and where R' and R'' independently of one another may be selected from the group consisting of hydrogen and the branched or unbranched saturated or unsaturated hydrocarbon radicals, in particular the alkyl radical having 1 to 30 carbon atoms, against undesired skin pigmentation.

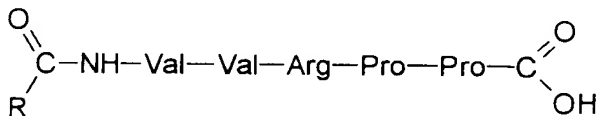
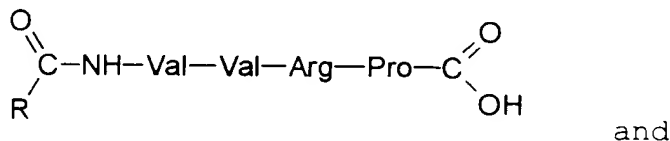
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3. ~~Preparations~~ ^{Typical preparations} according to Claim 1 or use according to Claim 2, ~~characterized in that~~ ^{characterized} the oligopeptide(s) is/are selected from the group consisting of Val-Val-Arg-Pro, Val-Val-Arg-Pro-Pro and Val-Val-Arg-Pro-Pro-Pro.

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- Topical preparations*
4. ~~Preparations~~ according to Claim 1 or use according to Claim 2, ~~characterized~~ in that the oligopeptide(s) is/are selected from the group consisting of the oligopeptides Val-Val-Arg-Pro, Val-Val-Arg-Pro-Pro and Val-Val-Arg-Pro-Pro-Pro whose N-terminus is acylated by unbranched alkanoyl groups.

- Topical preparations*
5. ~~Preparations~~ according to Claim 1 or use according to Claim 2, ~~characterized~~ in that the oligopeptide(s) is/are selected from the group consisting of



R representing the stearoyl or the palmitoyl radical.

- 15 *Topical preparations*
6. ~~Preparations~~ according to Claim 1 or use according to Claim 2, ~~characterized~~ in that the oligopeptide(s) is/are present in cosmetic or ~~topical~~ dermatological *topical* preparations in concentrations of 0.000001 - 10% by weight, ~~preferably 0.0001 - 1% by weight~~, in particular 0.0001 - 0.1% by weight, based on the total weight of the preparations.